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DARWINNEON CRYPTICUS, A NEW GENUS AND SPECIES OF JUMPING SPIDER FROM THE GALÁPAGOS ISLANDS (ARANEAE: SALTICIDAE)[1]

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ABSTRACT: *Darwinneon crypticus*, new genus and species, is described from three female and three immature specimens. All were taken on the south side of Santa Cruz Island in the Galápagos Islands. They are very small jumping spiders related to *Neon* and *Neonella*, particularly to the species *Neon nigriceps* Bryant.

Recent expeditions to the Galápagos Islands have uncovered a new genus and species of salticid spider from Santa Cruz Island (Indefatigable). The spider is described below, and its taxonomic placement is discussed.

Darwinneon Cutler, new genus

Very small spiders closely related to *Neon* and *Neonella*. Carapace longer than wide, truncated anteriorly, rounded posteriorly, hardly rounded at sides, height less than two-thirds width. As viewed laterally, anterior and posterior steeply sloping from just behind row III eyes. Diameter of anterior median

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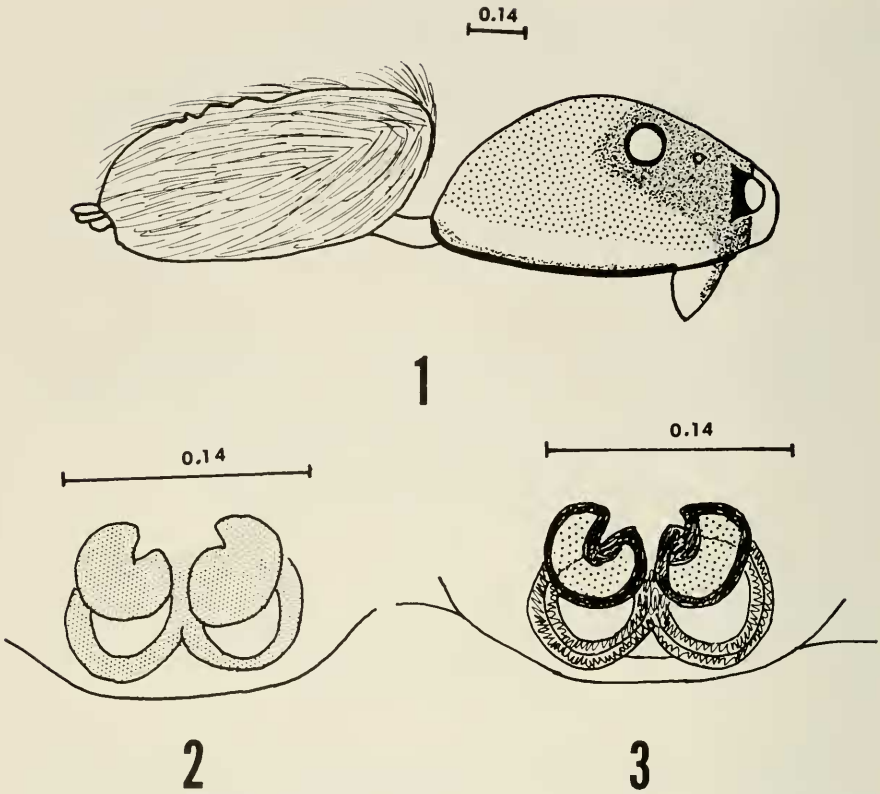

Figures 1–3. *Darwinneon crypticus* Cutler, new genus and species. 1. Lateral view of holotype. 2. External view of epigynum of paratype in California Academy of Sciences. 3. Internal view of epigynum of paratype in California Academy of Sciences.

eyes very large for the size of the spider, less than one-fourth the length of the prosoma. Eyerow I recurved. Row III eyes face laterally and smaller than anterior lateral eyes. Eyefield wider than long, as wide behind as in front. Median groove of carapace nearly obsolete. Clypeus very narrow. Abdomen suboval, dorsum without scutum, integument slightly iridescent and hairy. Retromargin of chelicera with a small single tooth. Legs of moderate length, formula 4312, first pair slightly heavier. Trochanteral limuli rounded. Leg spination complex, but with two pair of prominent spines on the metatarsi of the first three legs. Spination reduced on posterior legs, but prominent spines still present.

Epigynum consisting of two anterior atria without an obvious septum separating them. The seminal receptacles appear to be two semicircular tubes mostly posterior to the atria.

Darwinneon may be separated from related genera as follows: from *Chalcoscirtus* by the presence of a retromarginal cheliceral tooth, possession of posterior leg spines, smaller size, and different epigynal structure; from *Neon* by usual smaller size, different body shape viewed laterally, extreme size of anterior median eyes, possession of strong posterior leg spines, lack of a median epigynal septum, and relative larger size of retromarginal cheliceral tooth; from *Neonella* by lack of usual *Neonella* color pattern on abdomen, different structure of internal ducts and receptacles of epigynum, possession of posterior leg spines, and more rounded lateral profile of carapace; from *Semiopyla* by presence of retromarginal cheliceral tooth, and possession of two anterior epigynal atria instead of one.

Darwinneon crypticus Cutler, new species.

Diagnosis. The characters of the species are the same as those of the genus. All types are mature females.

Description of holotype. Measurements are in millimeters. Total length 1.72, prosoma 0.83 long, 0.65 wide. Height of carapace at eyerow III 0.40. Clypeus 0.02 high. Diameter of anterior median eyes 0.20, of anterior lateral eyes 0.15, of row II eyes 0.02, of row III eyes 0.11. Distance of eyerow II from eyerow I 0.11, of eyerow II from eyerow III 0.13. Eyefield length 0.39. Sternum length 0.32, width 0.24. The major leg spines occur as follows: metatarsi I–III have two pair of ventral spines, metatarsus IV has three spines at the distal end; tibia I and II have two pair of ventral spines, tibia III and IV have two spines, one pair midway along the length on the prolateral and retrolateral sides; there are no femoral spines. Leg lengths are:

	I	II	III	IV
Femur	0.39	0.31	0.42	0.48
Patella	0.20	0.21	0.18	0.21
Tibia	0.24	0.22	0.27	0.36
Metatarsus	0.18	0.18	0.21	0.34
Tarsus	0.21	0.18	0.21	0.20
Total	1.22	1.10	1.29	1.59

Opisthosoma 0.88 long, 0.60 wide. Color of carapace brown, ocular quadrangle brownish black, lateral margin with thin black stripe and pale brown stripe just above, middorsally a white stripe from the posterior margin of carapace to just forward of row III eyes, scattered white hairs in ocular quadrangle. Chelicerae as viewed from front, brown proximally with gray tips and gray along the medial edge. Endites and labium pale brown with gray tips. Sternum brown. The pedipalps are slightly swollen and strikingly colored; tarsus, femur, and trochanter black; tibia and patella milk white. All legs similarly

colored; tarsi light grayish brown; metatarsi light grayish brown on distal half, dark grayish brown on proximal half; tibia dark grayish brown on distal three-fourths, proximal fourth light grayish brown; patella as in tibia but proportions half and half; femora all dark grayish brown with distal ventral yellow spot; all dorsal midlines of all specimens are pale yellow. Dorsum of opisthosoma gray with slight iridescence, cardiac stripe of thick white hairs on anterior half, scattered small white spots forming faint chevron pattern posteriorly. Many long hairs on dorsum and along sides. Venter grayish brown, no iridescence or pattern, few hairs. Holotype in the collection of the California Academy of Sciences.

Description of other specimens. Paratype in the California Academy of Sciences, total length 1.67; paratype in Royal Museum of Central Africa, Tervuren, Belgium, total length 1.75. The immature specimens in the California Academy of Sciences are 1.70 and 1.62 in total length, and are probably penultimates, the Tervuren specimen is smaller, 1.45 in total length. All immatures look alike. They are very pale brown, have a flatter lateral carapace profile compared to the adults, and have the legs and palpi annulate brown and white.

Distribution. All specimens are from the south central side of Santa Cruz Island in the Galápagos Archipelago. The ecological amplitude of the species appears great as one specimen was taken from *Scalesia*, a genus of tree-size composites, while two others were taken from humid detritus at the bottom of a crevasse.

Holotype. Galápagos Archipelago, Santa Cruz, Darwin Research Station, 12 February 1964, Cavagnaro and Schuster. Paratype in the California Academy of Sciences collection: Galápagos Archipelago, Isla Santa Cruz, Bella Vista Trail, 11 February 1964, on *Scalesia*, R. O. Schuster. Paratype in Tervuren: *Galápagos*: Ile de Santa Cruz, A 800 m de l'embarcadère de la St. Darwin; Au fond d'une crevasse, profunde de 10 m;-dans eboulis de pierres avec terre et détritus humides -XII-1964 J. et N. Leleup. The two immatures in the California Academy of Sciences were taken with the holotype. The immature in the Tervuren Museum was taken with the paratype.

Derivation of name. *Darwinneon* is a composite name honoring Charles Darwin with *Neon*, the name of a closely related genus. The specific name refers to the hidden habits of this species.

Discussion. The only species to which *D. crypticus* shows a close relationship is known as *Neon nigriceps* Bryant. This species is found in Cuba and the Bahama Islands. The major differences are the larger size of *N. nigriceps*, the different lateral profile of the carapace, and the structure of the epigynum. There are certain structural similarities which cannot be ignored: both species have a similar retromarginal cheliceral tooth; both species have similar leg spination; and the internal genitalia of *D. crypticus* could be

derived from *N. nigriceps* by shortening of the seminal receptacles; of course the converse may also be true. However, *N. nigriceps* appears to have a faint septum separating the atria, and has a distinct posterior epigynal notch. *Neon nigriceps*, as Gertsch and Ivie (1955) have indicated, does not belong in the genus *Neon*. It shows certain affinities to *Neonella* and to *Darwinneon*. The question of the placement of *Neon nigriceps* will have to await further study, and a new genus may have to be erected for it.

LITERATURE CITED

Gertsch, W. J., and W. Ivie
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